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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**REGION IX LABORATORY
1337 S. 46TH STREET
BLDG. 201
RICHMOND, CA 94804-4698**

DEC 20 2002

MEMORANDUM

SUBJECT: Case R03S08
Results for Perchlorate Analysis

FROM: Brenda Bettencourt, Director *B. Z. MBB*
EPA Region 9 Laboratory (PMD-2)

TO: Nancy Riveland-Har, Remedial Project Manager
Site Cleanup Section 4 (SFD-7-4)

Attached are the report narrative and results spreadsheet from analysis of samples from the Omega Chemical Superfund site. These data have been reviewed in accordance with EPA Region 9 Laboratory policy. Summary information for the data included in this report is as follows:

SITE/PROJECT:	Omega Chemical
CASE:	R03S08
LABORATORY:	U. S. EPA Region 9 Laboratory
SAMPLE DELIVERY GROUPS:	02323D
ANALYSES:	Perchlorate (EPA method 314.0)

A full documentation package for these data, including raw data and sample custody documentation, is on file at the EPA Region 9 Laboratory. If you would like to request additional review and/or validation of the data, please contact Vance Fong at the Region 9 Quality Assurance Office.

If you have any questions please contact Rich Bauer at (510) 412-2312, or Ken Hendrix at (510) 412-2321.

ATTACHMENT: Analytical Report

USEPA REGION 9 LABORATORY
REPORT NARRATIVE

CASE NUMBER:	R03S08
SAMPLE DELIVERY GROUP:	02323D
PROGRAM:	SUPERFUND
DOCUMENT CONTROL #:	B0101145-2223
DATE:	12/10/02
ANALYSIS:	Perchlorate
SAMPLE NUMBERS:	

<u>SAMPLE ID</u>	<u>LABORATORY SAMPLE ID</u>
GW402-MW08A-0040	AB37672
GW402-MW08B-0070	AB37673
GW402-MW08C-0087	AB37674
GW402-MW08D-0116	AB37675
GW402-MW01A-0055	AB37676
GW402-MW01B-0080	AB37677
GW402-MW01B-1080	AB37678
GW402-MW01A-0057	AB37679
GW402-MW06A-0042	AB37735
GW402-MW09A-0032	AB37736
GW402-MW09B-0054	AB37737
GW402-MW02A-0055	AB37766
GW402-MW05A-0049	AB37767
GW402-OW1A-0080	AB37797
GW402-OW1B-0116	AB37798
GW402-OW7-0081	AB37799
GW402-OW2-0078	AB37824
GW402-OW3-0080	AB37825
GW402-OW5-0048	AB37826
GW402-OW5-1048	AB37827

GENERAL COMMENTS

Twenty water samples were received from the Omega Chemical Superfund project from 11/19/02 through 11/26/02.

The requested analysis was perchlorate by Region 9 Laboratory SOP #531 (EPA Method 314.0). All perchlorate analyses were performed within the 28-day holding time.

SAMPLE RECEIPT AND PRESERVATION

No shipping or preservation issues were encountered.

QC COMMENTS

The following comment appears on the Summary of Analytical Results:

A. All detected results less than the quantitation limit (QL) are estimated (J).

No perchlorate was detected in the LRB associated with this sample delivery group.

The LFM and LFM duplicate recoveries for perchlorate were within the 80-120% QC limits.

The relative percent difference (RPD) between the LFM and LFM duplicate for perchlorate was within the 15% QC limit.

The perchlorate LFB recovery was within the 85-115% QC limits.

Questions concerning the data can be answered by Osell Salvador at (510) 412-2358.

GLOSSARY

Laboratory Reagent Blanks (LRB)

A laboratory reagent blank is laboratory reagent water or baked sand with all reagents added and carried through the same sample preparation and analytical procedures as the field samples. The laboratory reagent blank is used to determine the level of contamination introduced by the laboratory during analysis.

Laboratory Fortified Matrix (LFM), Laboratory Fortified Matrix Duplicate (LFMD) and Laboratory Duplicate (LD) Analysis

The laboratory fortified matrix spike sample and laboratory duplicate analyses provide information about the effect of the sample matrix on sample preparation and measurement. Poor percent recovery (%R) results and large relative percent difference (RPD) between duplicates may indicate inconsistent laboratory technique, sample nonhomogeneity in soils, or matrix effects which may interfere with analysis.

Laboratory Fortified Blank (LFB) Analysis

The laboratory fortified blank is laboratory reagent water or baked sand with a known concentration of the analytes of interest added by the laboratory with all reagents added and carried through the same sample preparation and analytical procedures as the field samples. Poor percent recovery (%R) results may indicate inconsistent laboratory technique.

**EPA Region 9 Laboratory - Richmond, CA
SUMMARY OF ANALYTICAL RESULTS**

Site: Omega Chemical
Case: R03S08
SDG: 02323D
Date: 12/10/02
Analysis: Perchlorate
Matrix: Water

Sample No.			GW402-MW08A-0040			GW402-MW08B-0070			GW402-MW08C-0087			GW402-MW08D-0116			GW402-MW01A-0055		
Lab Sample I.D.			AB37672			AB37673			AB37674			AB37675			AB37676		
Collection Date			11/15/02			11/15/02			11/15/02			11/15/02			11/18/02		
Units			ug/L			ug/L			ug/L			ug/L			ug/L		
Analyte	CAS #	EPA Method	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com
Perchlorate		314.0	4			2			3			2			3		

Com - Comments refer to the corresponding section in the report narrative for each letter.

N/A - Not Applicable.

N/R - Not Required.

Q - Refer to data qualifiers.

U - Parameter analyzed, but not detected; associated value is quantitation limit, adjusted for dilution.

J - The associated value is an estimated quantity.

The results are reported in ug/L.

**EPA Region 9 Laboratory - Richmond, CA
SUMMARY OF ANALYTICAL RESULTS**

Site: Omega Chemical
Case: R03S08
SDG: 02323D
Date: 12/10/02
Analysis: Perchlorate
Matrix: Water

Sample No.			GW402-MW01B-0080			GW402-MW01B-1080			GW402-MW01A-0057			GW402-MW06A-0042			GW402-MW09A-0032		
Lab Sample I.D.			AB37677			AB37678			AB37679			AB37735			AB37736		
Collection Date			11/18/02			11/18/02			11/18/02			11/19/02			11/19/02		
Units			ug/L			ug/L			ug/L			ug/L			ug/L		
Analyte	CAS #	EPA Method	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com
Perchlorate		314.0.	3			3			4			6			2		

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**EPA Region 9 Laboratory - Richmond, CA
SUMMARY OF ANALYTICAL RESULTS**

Site: Omega Chemical
Case: R03S08
SDG: 02323D
Date: 12/10/02
Analysis: Perchlorate
Matrix: Water

Sample No.			GW402-MW09B-0054			GW402-MW02A-0055			GW402-MW05A-0049			GW402-OW1A-0080			GW402-OW1B-0116		
Lab Sample I.D.			AB37737			AB37766			AB37767			AB37797			AB37798		
Collection Date			11/19/02			11/20/02			11/20/02			11/22/02			11/22/02		
Units			ug/L			ug/L			ug/L			ug/L			ug/L		
Analyte	CAS #	EPA Method	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com
Perchlorate		314.0	4			6			6			1	J	A	2		

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**EPA Region 9 Laboratory - Richmond, CA
SUMMARY OF ANALYTICAL RESULTS**

Site: Omega Chemical
Case: R03S08
SDG: 02323D
Date: 12/10/02
Analysis: Perchlorate
Matrix: Water

Sample No.			GW402-OW7-0081			GW402-OW2-0078			GW402-OW3-0080			GW402-OW5-0048			GW402-OW5-1048		
Lab Sample I.D.			AB37799			AB37824			AB37825			AB37826			AB37827		
Collection Date			11/22/02			11/25/02			11/25/02			11/25/02			11/25/02		
Units			ug/L			ug/L			ug/L			ug/L			ug/L		
Analyte	CAS #	EPA Method	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com
Perchlorate		314.0	4			4			3			5			4		

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**EPA Region 9 Laboratory - Richmond, CA
SUMMARY OF ANALYTICAL RESULTS**

Site: Omega Chemical
Case: R03S08
SDG: 02323D
Date: 12/10/02
Analysis: Perchlorate
Matrix: Water

Sample No.			Reagent Blank			Method QL
Lab Sample I.D.			Filtered			
Collection Date			N/A			
Units			ug/L			ug/L
Analyte	CAS #	EPA Method	Result	Q	Com	QL
Perchlorate		314 0	2 U			2

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N/A - Not Applicable

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J - The associated value is an estimated quantity

The results are reported in ug/L